

PRELIMINARY AMENDMENT

Appln. No.: 10/500,890

Attorney Docket No.: Q82374

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): An electric power steering apparatus, which controls a motor that gives a steering assisting force to a steering mechanism based on an electric current controlling value which is computed from a steering assisting command value which has been computed by a computing device based on a steering torque generated in a steering shaft and an electric current value of the motor, being characterized by comprising a self-aligning torque estimating section which estimates a self-aligning torque ~~by a disturbance observer constitution~~ and a steering torque feedback section which performs definition of a steering reaction force based on a self-aligning torque estimated value which has been estimated by the self-aligning torque estimating section and feeds the steering reaction force back to the steering torque.

2. (currently amended): The electric power steering apparatus as set forth in Claim 1, wherein ~~definition of static characteristics of the steering torque feedback section is determined based on the steering reaction force and the self-aligning torque estimated value~~ said self-aligning torque estimating section estimates said self-aligning torque by a disturbance observer constitution.

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3. (currently amended): The electric power steering apparatus as set forth in Claim 1, wherein ~~the definition of dynamic characteristics of the steering reaction force of the steering torque feedback section is performed such that a gain of a transfer function in a frequency band of information which is desirous to be conveyed to a driver is allowed to be large, while the gain of the transfer function in the frequency band of information which is not desirous to be conveyed to the driver is allowed to be small~~ the self-aligning torque estimating section is allowed to estimate the self-aligning torque from a motor rotation signal or angular speed signal and a motor electric current command value.

4. (currently amended): The electric power steering apparatus as set forth in Claim 1, wherein ~~a characteristic of a controller into which a deviation between the steering torque and an output from the steering torque feedback section is inputted is allowed to be a proportional factor in a low range and a cutoff factor in a high range, without containing an integral factor~~ definition of static characteristics of the steering torque feedback section is determined based on the steering reaction force and the self-aligning torque estimated value.

5. (currently amended): The electric power steering apparatus as set forth in Claim 1, wherein ~~the self-aligning torque estimating section is allowed to estimate the self-aligning torque from a motor rotation signal or angular speed signal and a motor electric current command value~~ the definition of dynamic characteristics of the steering reaction force of the steering torque feedback section is performed such that a gain of a transfer function in a frequency band of information which is desirous to be conveyed to a driver is allowed to be large, while the gain of

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the transfer function in the frequency band of information which is not desirous to be conveyed to the driver is allowed to be small.

6. (new): The electric power steering apparatus as set forth in claim 1, wherein a characteristic of a controller into which a deviation between the steering torque and an output from the steering torque feedback section is inputted is allowed to be a proportional factor in a low range and a cutoff factor in a high range, without containing an integral factor.